

WHAT IS CLAIMED IS:

1. A high-resolution sensing method for a scanner, to allow the scanner to have a scan resolution thereof increased  $m$  times, wherein the scanner comprises a motor and a charge coupled device, and the charge coupled device has  $m$  rows of sensors spaced a distance from each other, the sensing method comprising:

moving the motor a distance equal to a width of one row of the sensors at a speed equal to the width divided by an exposure time; and

using  $m$  rows of the sensors to scan during the exposure time, so as to obtain a plurality of staggered image signals.

2. The sensing method according to claim 1, wherein the distance is equal to  $(x/m)+n$  times of the width, wherein  $x$  is a positive integer smaller than  $m$ , and  $n$  is an integer equal to or larger than 0.

3. The sensing method according to claim 1, wherein the motor is a step motor.

4. The sensing method according to claim 1, wherein the staggered image signals are processed and re-sorted to obtain a plurality of image data.

5. A high-resolution sensing method for a scanner, to increase a resolution of the scanner to  $m+1$  times, wherein the scanner has a motor and a charge coupled device, and the charge coupled device further has  $m$  rows of sensors spaced a distance from each other, the sensing method comprising:

moving the motor to a distance equal to  $m/(m+1)$  times the width of one row of the sensors in a speed equal to  $m/(m+1)$  times the width divided by an exposure time; and

5 using the  $m$  rows of sensors to scan during the exposure time, so as to obtain a plurality of staggered image signals.

6. The sensing method according to claim 5, wherein the distance is equal to  $n$  times the width, and  $n$  is an integer equal to or larger than 0.

10 7. The sensing method according to claim 1, wherein the motor is a step motor.

8. The sensing method according to claim 5, wherein the staggered image signals are processed and re-sorted to obtain a plurality of image data.

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